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#### **Overview**

September 2014 was overall cooler and drier than normal in Southwest Lower Michigan. Temperatures ended up about a degree below normal and precipitation about an inch below normal in many locations.

The month started out on the warm and humid side, with occasional rounds of thunderstorms during the first week. September 5<sup>th</sup> was the hottest day for most areas, as temperatures hit or exceeded the 90 degree mark in Kalamazoo, Battle Creek and Jackson. Lansing topped out at 89 and Grand Rapids stayed at 84, which secured a remarkable statistic of no 90 degree days in 2014 at both cities.

A significant cool down occurred in the middle of the month. Highs failed to reach 60 degrees throughout the area on September 12<sup>th</sup>. Muskegon also set a record for coldest high temperature on the 12<sup>th</sup>, with a high of 57. As skies cleared toward the later portion of the cold stretch, a few nights of patchy to widespread frost occurred in Northern and Central Lower Michigan.

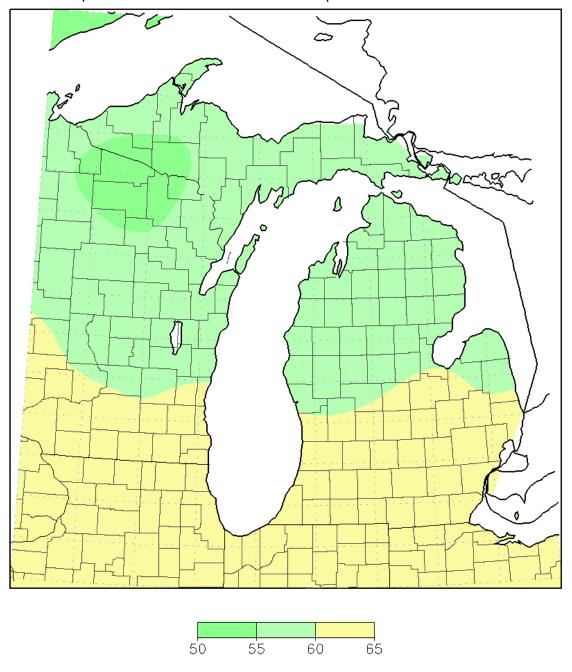
A week long stretch of warm and sunny weather rounded out the latter part of the month, with highs consistently in the 70s and lows around 50. Very little precipitation fell during this period, which kept the monthly precipitation at about 75 percent of normal for most locations. A cold front on the 29<sup>th</sup> brought light rain, followed by much cooler air for the final day of September.

There was one day of widespread severe weather in Southwest Lower Michigan. A line of storms on the evening of September 5<sup>th</sup> produced wind damage and numerous power outages spanning from west of Kalamazoo to east of Jackson. Many trees fell in Kalamazoo and in the Battle Creek area, and the airports in Kalamazoo and Battle Creek measured respective wind gusts of 56 and 60 mph.

Table 1. Reported temperature, precipitation and snowfall amounts for September 2014 at the primary climate stations in Southwest Lower Michigan and departures from normal.

Location		Average Temperature (°F)	Precipitation (inches)	Snowfall (inches)
Grand Rapids	Observed	62.1	3.10	0.0
	Departure from Normal	-0.7	-1.18	0.0
	Normal	62.8	4.28	0.0
Lansing	Observed	60.8	2.54	0.0
	Departure from Normal	-1.1	-0.96	0.0
	Normal	61.9	3.50	0.0
Muskegon	Observed	61.1	3.20	0.0
	Departure from Normal	-1.0	-0.69	0.0
	Normal	62.1	3.89	0.0

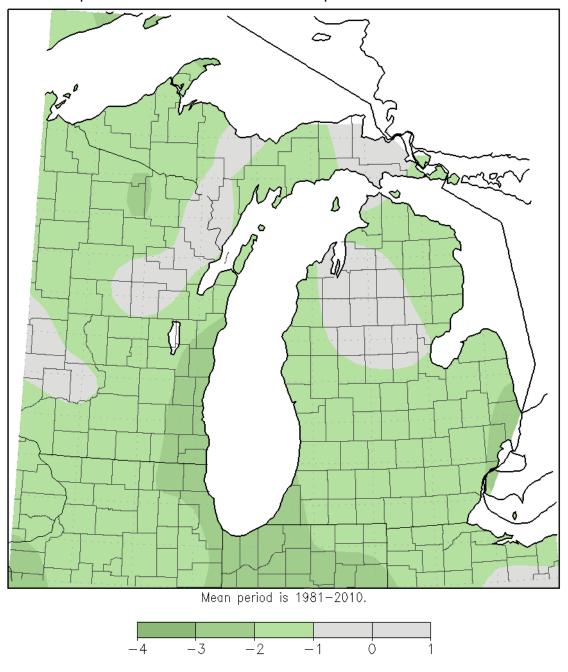
Average Temperature (°F) September 1, 2014 to September 30, 2014



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Figure 1. Average temperature (°F) for September 2014.

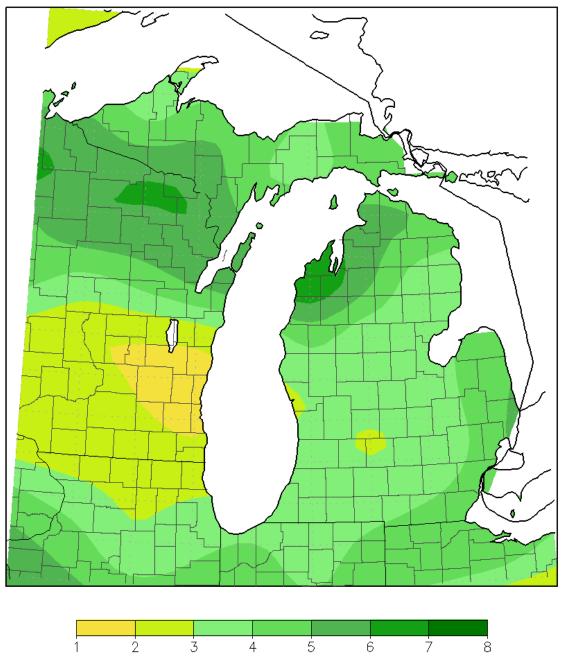
Average Temperature (°F): Departure from Mean September 1, 2014 to September 30, 2014



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Figure 2. Average temperature departure from normal (°F) for September 2014.

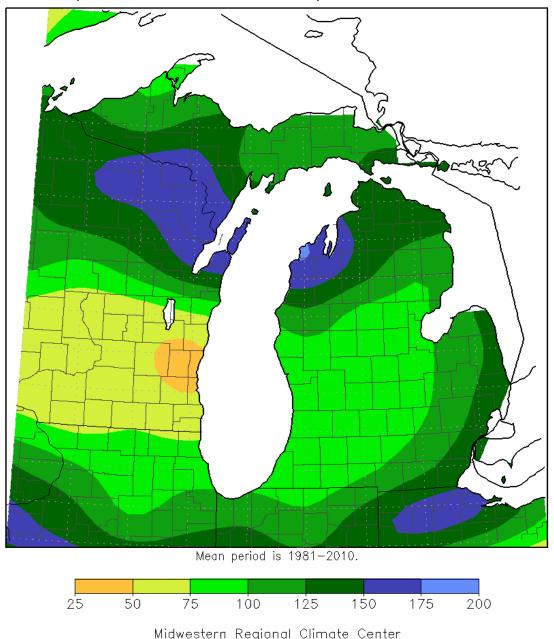
Accumulated Precipitation (in) September 1, 2014 to September 30, 2014



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Figure 3. Total precipitation (in inches) for September 2014.

Accumulated Precipitation: Percent of Mean September 1, 2014 to September 30, 2014



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Figure 4. Precipitation percentage of mean (in inches) for September 2014.